What is claimed is:

1. A method for estimating an amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers comprising steps of;

irradiating a light on the lateral side of said polarization-maintaining optical fibers during the connection of said polarization-maintaining optical fibers, and

estimating the amount of angular disagreement of said planes of polarization from positions and heights of peaks of brightness of a transmitted light produced by irradiating said light.

2. A method for estimating an amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers comprising steps of;

irradiating a light on the lateral side of said polarization-maintaining optical fibers after the connection of said polarization-maintaining optical fibers, and

estimating the amount of angular disagreement of said planes of polarization from positions and heights of peaks of brightness of a transmitted light produced by irradiating said light.

3. A method for connecting two polarization-maintaining optical fibers without angular disagreement by using the method for estimating the amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers according to claim 1.

4. A method for connecting two polarization-maintaining optical fibers without angular disagreement by using the method for estimating the amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers according to claim 2.

5. A method for connecting two polarization-maintaining optical fibers with predetermined angular disagreement by using the method for estimating the amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers according to claim 1.

6. A method for connecting two polarization-maintaining optical fibers with predetermined angular disagreement by using the method for estimating the amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers according to claim 2.